

**Written Testimony of
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Good morning, Mr. Chairman and Members of the Subcommittee. I am Donald Welsh, Regional Administrator for Region III of the United States Environmental Protection Agency (EPA). Thank you for the opportunity to appear before you today to comment on H.R. 4268, the Lead Free Drinking Water Act, and to provide a full update on the important issue of lead in the tap water of District of Columbia residents and the steps EPA and other agencies are taking to resolve the problem.

Let me begin by updating the committee with the latest developments in the District of Columbia. There is no higher priority for my office than to continue to work with the city and other partners to protect those who live and work in the District and to identify and correct the cause of elevated lead in the water. Since I last appeared before this committee on March 5, 2004, significant progress has been made in both areas.

EPA has authorized interim water treatment changes recommended by a Technical Expert Working Group to reduce the elevated lead levels in the tap water. The anticipated timetable for full introduction of the proposed remedy has been accelerated to mid-July, depending on the results of a more limited application scheduled to commence on or about June 1. These efforts will be detailed later in my testimony.

My remarks also will outline the steps being taken by, and at the direction of, EPA and the

District of Columbia to ensure residents have access to safe drinking water and proper precautionary guidance.

History and Extent of the Problem in D.C.

In prior testimony before this committee, the history and extent of the problem of lead in tap water in the District of Columbia was detailed. Briefly, in D.C., implementation of the regulatory framework established in EPA's 1991 Lead and Copper Rule (LCR) did not achieve key aspects of the Rule's intended objectives. The LCR requires systems to optimize corrosion control to prevent lead and copper from leaching into drinking water. To assure corrosion control is effective, the rule establishes an action level of 15 parts per billion for lead. If lead concentrations exceed 15 parts per billion in more than 10 percent of the taps sampled, the system must intensify tap water sampling and undertake a number of additional actions, including educating the public about steps they should take to protect their health. If the problem is not abated, the system must also begin a lead service line replacement program.

Within the last couple of years in the District of Columbia, lead concentrations in tap water in many homes increased well above the 15 parts per billion action level. In addition, public education efforts taken by the local utility were ineffective.

D.C. exceeded the 15 ppb action level during three reporting periods between 1992 and 1994 before it installed corrosion control treatment. The pH adjustment treatment implemented by the U.S. Army Corps of Engineers Washington Aqueduct, and given interim approval by EPA Region III in 1997 and final approval in 2000, appeared to be effective in minimizing lead levels until the reporting

period between July 1, 2001 and June 30, 2002. EPA received a final report from the District of Columbia Water and Sewer Authority (WASA) on August 27, 2002 indicating that the 90th percentile value had increased to 75 ppb during that period. The high level required that WASA conduct more frequent monitoring every six months. The lead action level was also exceeded for subsequent monitoring periods in 2003, with 90th percentile values of 40 ppb (January 1 to June 30, 2003) and 63 ppb (July 1 to December 31, 2003).

Starting in March 2003, WASA began a lead service line sampling program to evaluate the lead concentrations leached into water from lead service lines using a protocol that differs from that used for required tap monitoring. The Region received detailed sampling results from this program on October 27, 2003. The information was reviewed by our technical staff with an eye towards determining whether WASA met first-year goals for physical lead service line replacement or effectively “replaced” lines based on sampling results, as well as understanding the underlying cause of the corrosion problem. The report indicated that roughly two thirds of the 4,613 lead service lines tested through September 30, 2003 had lead levels that exceeded the lead action level. In many cases, lead levels from customer taps served by lead service lines were very high, with nearly three percent of the samples above 300 ppb and 18.5 percent above 100 ppb.

Frequently, several months passed between the time a sample was collected by WASA and information was provided to homeowners who participated in the expanded sampling program. In addition, the notifications were not fully effective in relaying to the customers the significance of the problem.

Actions to Identify and Correct Source of Elevated Lead Levels

Significant work is being done to identify and correct the cause of elevated lead levels in D.C. tap water.

In mid-April, the Technical Expert Working Group finalized its recommendations for water treatment changes to reduce corrosion while maintaining the optimum protection against other harmful contaminants that can be found in drinking water.

The Working Group, which was convened by EPA and includes representatives from the public and private sectors, recommended that the corrosion inhibitor, zinc orthophosphate, be added to the finished drinking water. Recognizing the critical importance of the treatment decision to reduce lead levels at the quickest feasible pace, and the delicate balance of water chemistry involved in this matter, the group's work is being reviewed at key points by an Independent Peer Review Panel formed by EPA. The formation of the Peer Review Panel, consisting of four corrosion control experts from around the country representing different sectors, helps ensure that the changes being made are informed with the best available science, that independent analysis is applied to the decision, and that all available options to solve this problem quickly are considered.

EPA, along with the Working Group, conducted two public meetings during the last week of April to update community members about the proposed change and to address questions. A fact sheet was distributed at the meetings and will continue to be shared via Web sites and through direct mailings to residences. Additional public meetings are planned as well.

On April 30, EPA issued a letter to the Washington Aqueduct and the District of Columbia Water and Sewer Authority authorizing the interim changes in the optimal corrosion control treatment

and the partial system application of the zinc orthophosphate, and a monitoring plan to closely evaluate system changes.

The treatment changes will begin on or around June 1 in the area known as the 4th High Pressure Zone in Northwest Washington and will be closely monitored using water quality parameters defined in an EPA action letter. The specific start date will be determined by the necessary procurement of equipment and flushing of mains in the target area.

Based on the results of the partial system application, a separate decision point will be used in early July 2004 to determine if full system application of the treatment may proceed. The broader action is planned to start on or about July 15 if no major issues present themselves during the partial test.

EPA will continue to work with its partners to assure that the public is well informed of the treatment changes and the temporary effects on water quality that may occur. Customers will be reminded that reduction in lead levels will not likely occur for at least six months after the treatment changes begin. Customers need to follow the flushing guidance and utilize water filters where supplied to ensure particularly that children under 6 years of age, pregnant women and nursing mothers are protected from elevated lead levels.

Finally, EPA has initiated an analysis through a contractor to evaluate potential impacts on wastewater treatment and to evaluate any impacts on local water bodies. The report is due to EPA by mid-June and will be factored into the full system treatment decision in early July.

Interim Steps to Protect Residents

WASA and the District of Columbia government continue to move ahead on a series of actions

directed by EPA to address the immediate public health threat posed by lead in drinking water. We stand ready to use our enforcement authorities if necessary to compel further action and to ensure consumers are protected and properly informed.

On March 4, 2004, EPA Region III issued a letter to the District of Columbia government listing 10 actions that the Region believed were necessary to reduce the public's risk of lead exposure, increase the knowledge base on lead levels in tap water by conducting widespread testing, and improve the effectiveness of public education. The District's City Administrator's Office transmitted a letter to WASA on March 5 ordering that these 10 actions be met and requiring that WASA submit plans to address each of the areas.

Subsequently:

- WASA has delivered over 29,000 NSF International-certified water filters and consumer instructions to occupants in homes and buildings with lead service lines as well as others. Periodic replacement of the filters according to manufacturer's instructions has also been ensured. Water filters continue to be sent out automatically, along with a referral to the D.C. Department of Health, when tap water test results indicate elevated lead levels.
- WASA has sent postcards to the 21,000 customers in its database that have service lines of unknown materials requesting participation in a broader sampling program. To date, WASA has received approximately 7,000 responses from customers requesting the sampling. Results of the sampling will be available by July 1 and will be factored into an update to the service line inventory due to EPA in August.
- Additional tap water sampling in buildings not served by lead service lines is continuing. A

representative sampling of buildings city-wide was required by EPA to include schools, day care centers, businesses and other facilities. WASA estimates that, through April 2004, it had obtained sampling results from more than 4,800 residences throughout the District that have copper, brass, and to a lesser extent, wrought iron and galvanized steel service lines. More than 90% of the samples taken from homes with confirmed copper and brass lines tested below the action level.

- An additional round of schools sampling for 130 D.C. public schools was completed using an EPA-approved protocol. The results were announced on April 29. This sampling round involved close to 2,000 samples focused on areas of the schools where the vulnerable population of children under 6 and pregnant women could be drinking. Tests showed that 101 schools had non detectable lead or lead levels below the EPA's recommended level of 20 parts per billion (ppb) for schools. The city took immediate action to remove 43 sinks and water fountains in 28 schools and one administrative building that tested higher than 20 ppb from service.
- WASA has committed to an accelerated schedule for physically replacing lead service lines in the District. WASA has agreed to complete 1,615 physical service line replacements during the compliance period that ends September 30 - a far greater pace than was met during the prior compliance period. We have also directed WASA to update its material inventory of service lines for purposes of determining the proper replacement pace for 2005 and beyond, and have received a health-based prioritization plan for replacements underway this year.
- The construction methods for service line replacement have been modified to ensure they do

not pose an undue risk to health in the days or weeks following the replacement, while ensuring compliance with the lead and copper regulation.

- WASA is expediting notification to customers of the results of water sampling at their residences, committing to providing results in 30 days or less. WASA has stated that residents now receive a letter that provides more detail about their sampling results, and those with high lead levels are referred to the D.C. Department of Health.
- WASA, the District and EPA have expanded outreach efforts to provide important information to consumers. WASA has made several modifications to its public education plans and is providing draft information products for EPA review in advance of issuance to satisfy a directive that communications on the lead issue convey the proper sense of urgency and concern for public health. The goal is to reach all sectors of the population in an effective way. WASA already has committed to a series of activities to broaden and improve its communications with the public.

EPA is completing a detailed compliance audit of WASA's lead service line program, public education, and compliance sampling actions. In letters to WASA dated March 31, based on the preliminary results of our initial compliance audit, EPA asserted instances in which requirements may not have been met. As part of the enforcement process, EPA required WASA to provide information and documentation to EPA responding to those findings. Nearly 6,000 pages of documents and voluminous electronic files submitted by WASA are under review by EPA as part of our compliance audit. EPA personnel have participated in two meetings in which representatives of WASA have presented information and explanation related to the alleged violations. Once EPA has completed its

review of all of the relevant information, EPA will make a final determination as to whether violations have occurred and will take appropriate action authorized under the Safe Drinking Water Act.

In a separate initiative, an internal EPA team completed its review of WASA's prior education and outreach efforts - a process that involved a review of materials, interviews with residents and public officials, and a survey of best practices from public water systems around the country. The report was transmitted to WASA on May 6 and made available to the public through the Region's Web site.

It is clear that WASA was ineffective in informing the public of the magnitude of the problem of lead in drinking water and in conveying the steps families and individuals should take to protect themselves. The spirit of the LCR encourages robust communication focused on the public's right to know. Mass media tools, including direct contact with media representatives, as is recommended in EPA guidance, were not used effectively.

The report identifies a number of steps WASA can take to achieve more effective public education and outreach regarding lead in drinking water. In addition to following mandatory requirements and making use of EPA *Lead in Drinking Water Regulation: Public Education Guidance*, the report recommends that WASA use consultants to assist in assessing the audience to be reached, securing feedback on its efforts, and in making recommendations for design and content of materials as well as delivery methods.

Major issues identified by the reviewers were the lack of a sense of urgency in outreach efforts, failure to adequately convey information to the intended audience, insufficient opportunity for involvement by the affected public in development of a communications strategy, and lack of tracking measures to determine the success of outreach activities.

The recommendations were designed as key input to WASA's continuing efforts to plan and carry out enhancements to drinking water education efforts both for regulatory compliance and "beyond compliance" efforts.

The report also includes recommendations for EPA Region III to improve its oversight of WASA's public education program. We have revised our standard operating procedures, in part, to assure that any shortcomings in public outreach are identified early and corrected, and that proper expertise in risk communication is utilized in the process. We are more closely monitoring WASA's activities to ensure that system-wide notices effectively inform customers about the lead risk and we will ensure that information provided in WASA's next Consumer Confidence Report to customers is clear with respect to information about lead levels in drinking water.

In addition to our collaborative efforts with the city, EPA has taken a number of actions to provide information to residents and others on the issue of lead in the District's drinking water:

- The Region has created a new program with the National Nursing Centers Consortium, called Lead Safe D.C., at an initial cost of \$100,000, to bring lead education information, home visits and blood level testing to District neighborhoods. The consortium is the nation's only network of nurse-managed community healthcare centers, and has enjoyed great success with a similar lead information program with EPA in the City of Philadelphia. A public event highlighting the new program is scheduled for later today.
- The Region continues to add to its comprehensive Web site that includes advice for consumers, frequently asked questions, health effects information, links to informational hotlines, WASA and the D.C. government, and key communications between EPA and other parties. It can be

accessed at www.epa.gov/dclead. Information is also available through EPA's National Safe Drinking Water Hotline.

- EPA dispatched community outreach specialists to provide information and get input on the lead issue from community groups and individual residents in the District.
- The Region is proactively providing consumer information in English and Spanish to radio stations for use in the District. Nearly a dozen Regional employees have volunteered to assist with translation to Spanish of written and broadcast materials.
- We have also held or participated in 10 public meetings since early February. In addition, we have been meeting regularly with a coalition of environmental and consumer groups - the Lead Emergency Action for the District (LEAD) - to both hear their concerns and to identify how to better communicate with the general public.

With regard to H.R. 4268, my colleague, Acting Assistant Administrator Benjamin Grumbles of the Office on Water, is addressing EPA's perspective on the legislation in his committee testimony.

On the issue of primacy for drinking water responsibility and enforcement in the District of Columbia, the intent of the Safe Drinking Water Act is for the states (the District is included within the definition of state) to have jurisdiction over the program. If the District seeks such status, we would entertain an application and work with the District to consider the issues involved.

Conclusion

In conclusion, working closely with the District of Columbia, our public service partners and concerned citizens, we will continue to aggressively act to protect residents and resolve the lead

problem. We are taking action to hasten the day when the citizens of the District of Columbia can once again be confident in the safety of their drinking water. We are committed to bringing sound solutions to this difficult problem as soon as possible, and we are committed to keeping the public fully informed along the way.

Thank you for the opportunity to present this information this morning. I am pleased to answer any questions you may have.